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10/069,004

02/20/2002

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11/01/2005

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EXAMINER

NGUYEN, BINH QUOC

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,004

Applicant(s)

ARAMAKI, TAKASHI

Examiner

Binh Q. Nguyen

Art Unit

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**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02/20/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 02/20/2002.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. **Claim 2** is objected to because of the following informalities:

Term "*the short packet*" in line 3 is improper because there is no antecedent basis.

Examiner suggests changing this term to "--*the fixed-length short packet* --".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1-11** are rejected under 35 U.S.C. 102(e) as being anticipated by

*Stanwood et al* the US Patent No.: 6,683,866 hereinafter referred to as *Stanwood*.

**Regarding claim 1.** *Stanwood* teaches a radio apparatus comprising:

means for determining whether or not control procedure information for controlling

packet communication is contained in a variable-length packet (*see col. 11, lines 7-65*) in

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which is indicated a destination (*see col. 11, lines 52-65*) for performing communication in a one-to-one or one-to-multiple mode with other radio apparatuses (*see col. 6, lines 21-31*); and

means for, when it is determined that said control procedure information is contained (*see col. 11, lines 7-65*), mapping said control procedure information onto a fixed-length short packet (*see Fig. 8, col. 3, line 65-to-col. 4, line 36, "TC/PHY packets having fixed length payloads" means fixed-length short packet*) that is shorter than a fixed-length packet used for communication with other radio apparatuses (*see col. 16, lines 12-45*).

**Regarding claim 2.** *Stanwood* teaches the radio apparatus according to claim 1, wherein only a necessary part of control procedure information is mapped onto the short packet (*see col. 11, lines 7-65*).

**Regarding claim 3.** *Stanwood* teaches the radio apparatus according to claim 1, further comprising: means for mapping a variable-length packet onto a fixed-length packet, and composing a frame signal from this fixed-length packet after mapping and a short packet onto which control procedure information has been mapped, and transmitting said frame signal (*see Fig. 8-11, col. 3, line 65-to-col. 4, line 36*).

**Regarding claim 4.** *Stanwood* teaches the radio apparatus according to claim 3, further comprising:

means for decomposing a frame signal and extracting a variable-length packet and short packet (*see Fig. 8-11, step 154 at col. 16, lines 37-61*);

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means for extracting control procedure information from said short packet and mapping said control procedure information onto another variable-length packet (*see Fig. 8-11, step 160 at col. 16, line 37-to-col. 17, line 26*); and

means for multiplexing both said variable-length packets (*see col. 6, lines 35-46, and col. 9, lines 1-15*).

**Regarding claim 5.** *Stanwood* teaches the radio apparatus according to claim 1, wherein said control procedure information is IGMP (Internet Group Multicast Protocol) information (*see Fig. 4-11, col. 6, lines 21-31, col. 8, lines 1-14, and col. 15, lines 1-17*).

**Regarding claim 6.** *Stanwood* teaches the radio apparatus according to claim 1, wherein said variable-length packet is an IP (Internet Protocol) packet (*see col. 2, lines 16-61, and col. 5, lines 54-67*).

**Regarding claim 7.** *Stanwood* teaches a radio communication system whereby one station apparatus of a mobile station apparatus provided with a radio apparatus and a base station apparatus provided with a radio apparatus performs radio resource allocation, said radio apparatus comprising (*see Fig. 1, col. 2, lines 2-44*):

means for determining whether or not control procedure information for controlling packet communication is contained in a variable-length packet (*see col. 11, lines 7-65*) in which is indicated a destination (*see col. 11, lines 52-65*) for performing communication

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in a one-to-one or one-to-multiple mode with other radio apparatuses (*see col. 6, lines 21-31*); and

means for, when it is determined that said control procedure information is contained (*see col. 11, lines 7-65*), mapping said control procedure information onto a fixed-length short packet (*see Fig. 8, col. 3, line 65-to-col. 4, line 36, "TC/PHY packets having fixed length payloads" means fixed-length short packet*) that is shorter than a fixed-length packet used for communication with other radio apparatuses (*see col. 16, lines 12-45*).

**Regarding claim 8.** *Stanwood* teaches a radio communication system provided with a radio apparatus and a communication network apparatus that transmits and receives variable-length packets to and from said radio apparatus via a router (*see Fig. 1, col. 2, lines 2-44, "Telco Switch" means a router*), said radio apparatus comprising:

means for determining whether or not control procedure information for controlling packet communication is contained in a variable-length packet (*see col. 11, lines 7-65*) in which is indicated a destination (*see col. 11, lines 52-65*) for performing communication in a one-to-one or one-to-multiple mode with other radio apparatuses (*see col. 6, lines 21-31*); and

means for, when it is determined that said control procedure information is contained (*see col. 11, lines 7-65*), mapping said control procedure information onto a fixed-length short packet (*see Fig. 8, col. 3, line 65-to-col. 4, line 36, "TC/PHY packets having fixed length payloads" means fixed-length short packet*) that is shorter than a fixed-length packet used for communication with other radio apparatuses (*see col. 16, lines 12-45*).

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**Regarding claim 9.** *Stanwood* teaches a multicast communication method (*see Fig. 4-11, col. 6, lines 21-31, col. 8, lines 1-14, and col. 15, lines 1-17*) wherein, when communication is performed in a one-to-one or one-to-multiple mode between radio apparatuses (*see Fig. 4-11, col. 6, lines 21-31, col. 8, lines 1-14, and col. 15, lines 1-17*), in a case where control procedure information for controlling packet communication is contained in a variable-length packet (*see col. 11, lines 7-65*) in which a destination for performing said communication is indicated (*see col. 11, lines 52-65*), a radio apparatus maps said control procedure information onto a fixed-length short packet (*see Fig. 8, col. 3, line 65-to-col. 4, line 36, "TC/PHY packets having fixed length payloads" means fixed-length short packet*) shorter than a fixed-length packet used for communication with other radio apparatuses (*see col. 16, lines 12-45*), and transmits said control procedure information (*see col. 7, lines 31-65*).

**Regarding claim 10.** *Stanwood* teaches the multicast communication method according to claim 9, wherein a variable-length packet is mapped onto a fixed-length packet, and a frame signal is composed from this fixed-length packet after mapping and a short packet onto which control procedure information has been mapped (*see all steps on Fig. 11, and col. 3, line 65-to-col. 4, line 36*), and is transmitted (*see col. 7, lines 31-65*).

**Regarding claim 11.** *Stanwood* teaches the multicast communication method according to claim 10, wherein a variable-length packet and short packet are extracted from a frame signal (*see col. 3, line 65-to-col. 4, line 36, and col. 16, lines 37-67*), control procedure information is extracted from this short packet and mapped onto another variable-length

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packet (*see col. 3, line 65-to-col. 4, line 36, col. 15, line 18-to-col. 16, line 67*), after which both variable-length packets are multiplexed (*see col. 6, lines 35-46, and col. 9, lines 1-15*).

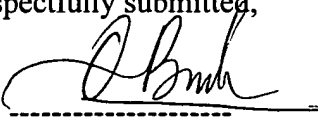
### ***Contact Information***

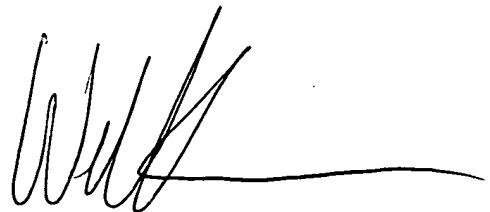
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh Q. Nguyen whose telephone number is 571-272-8563. The examiner can normally be reached on M-F: 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

By:   
Binh Q. Nguyen  
Patent Examiner  
10/24/2005



WELLINGTON CHIN  
SUPERVISORY PATENT EXAMINER